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Notice of Allowability

Application No.

10/825,447

Examiner

Stanley J. Pruchnic, Jr.

Applicant(s)

SEVERSON, JOHN A.

Art Unit

2859

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 3/25/05.
2. ☒ The allowed claim(s) is/are 1-14.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date See attachment.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date <u>9/23/04, 7/5/05 (2 sheets)</u> | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input checked="" type="checkbox"/> Other <u>Approved Drawing Change</u> . |

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with NICKOLAS E. WESTMAN on 26 July 2005.

2. The application has been amended as follows in order to more clearly describe the invention:

In the Specification:

3. On Page 8, in Line 12, after the words "opening 24 between the", the words "flow channel" have been deleted and replaced therefor by --inlet end air scoop-- in order to more clearly describe the invention.

4. On Page 8, in the LAST Line, after the words "Patent No.", the patent number "2,970,478" has been deleted and replaced therefor by --2,970,475-- in order to correct a minor error, intending to refer to the WERNER patent.

5. On Page 9, in the LAST Line, after the words "be heated by", the word "boundry" has been deleted and replaced therefor by the correctly spelled word --boundary-- in order to correct an obvious typographical error.

6. On Page 15, in Line 3, before "filed", the parenthesized phrase --(now allowed)-- has been inserted in order to update the current status of the pending application.

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In the Claims:

7. In Claim 2, Line 7, after "velocity of the free", the word "system" has been deleted and the word --stream-- has been inserted therefor in order to more clearly describe the invention.
8. In Claim 6, Line 2, after "providing", the phrase "a probe and" has been deleted in order to more clearly describe the invention.
9. In Claim 6, Line 2, after "flow channel", the phrase "in said probe" has been inserted in order to more clearly describe the invention.

Drawings

10. The following changes to the drawings have been approved by the examiner and agreed upon by applicant:
 - a. Delete reference characters "156", "158", "162", "166" and associated leaders for these elements not described in the specification.
 - b. Delete the reference character and leader "160" in the lower right of Fig. 1, since "160" is used for the point described in the specification on Page 8, Last sentence.

See Annotated Sheet labeled "Examiner's suggested drawing change", attached to this Office Action.

In order to avoid abandonment of the application, applicant must make these above agreed upon drawing changes.

INFORMATION ON HOW TO EFFECT DRAWING CHANGES

Replacement Drawing Sheets

Drawing changes must be made by presenting replacement sheets which incorporate the desired changes and which comply with 37 CFR 1.84. An explanation of the changes made must be presented either in the drawing amendments section, or remarks, section of the amendment paper. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). A replacement sheet must include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of the amended drawing(s) must not be labeled as "amended." If the changes to the drawing figure(s) are not accepted by the examiner, applicant will be notified of any required corrective action in the next Office action. No further drawing submission will be required, unless applicant is notified.

Identifying indicia, if provided, should include the title of the invention, inventor's name, and application number, or docket number (if any) if an application number has not been assigned to the application. If this information is provided, it must be placed on the front of each sheet and within the top margin.

Annotated Drawing Sheets

A marked-up copy of any amended drawing figure, including annotations indicating the changes made, may be submitted or required by the examiner. The annotated drawing sheet(s) must be clearly labeled as "Annotated Sheet" and must be presented in the amendment or remarks section that explains the change(s) to the drawings.

Timing of Corrections

Applicant is required to submit acceptable corrected drawings within the time period set in the Office action. See 37 CFR 1.85(a). Failure to take corrective action within the set period will result in ABANDONMENT of the application.

If corrected drawings are required in a Notice of Allowability (PTOL-37), the new drawings **MUST** be filed within the **THREE MONTH** shortened statutory period set for reply in the "Notice of Allowability." Extensions of time may **NOT** be obtained under the provisions of 37 CFR 1.136 for filing the corrected drawings after the mailing of a Notice of Allowability.

Reasons for Allowance

11. The following is an examiner's statement of reasons for allowance:

12. Of the prior art of record, Kromer et al. (having a common inventor as the instant application) discloses a temperature sensor mounted on an aircraft, which indicates an estimated static temperature using the cooling rate of a total air temperature probe. The method is not for an object in a free stream airflow as claimed by Applicant, and Kromer et al requires controlling the heater by turning it off, not maintaining the temperature at a substantially known offset above the static temperature of the free stream airflow as claimed by Applicant. When in takeoff mode or continuous flight mode, the probe heater of Kromer et al is controlled to a constant temperature (although not monitored).

13. Claim 1 is allowable because the prior art fails to teach or fairly suggest a method of providing an indication of static temperature for an object in a free stream airflow including a step of maintaining the temperature measured by the temperature sensing element at a substantially known offset above the static temperature of the free stream airflow as defined in the claim, each element arranged and functioning as recited in claim 1 in combination with the other limitations of the claim.

14. Of the prior art cited by Applicant, Werner teaches away from the claimed invention since heaters (110, 111, 112) are designed with the intention of NOT affecting the temperature sensed (Col. 11, Line 73 - Col. 12, Line 5). DeLeo describes an air temperature sensor including heating elements (80, 98) for anti-icing and temperature sensing element (38) located at a leading portion of branch passageway (32; Fig. 6) in order that the heater will not affect the sensed temperature (Col. 6, Lines 14-18), thus teaches away from the claimed invention. Phillips also teaches away from the claimed invention as he also seeks to minimize the effect of heating on the temperature sensing (Col. 6, Lines 36-60).

15. Claims 8 and 12 are allowable because the prior art fails to teach or fairly suggest an air temperature sensing housing (and regarding claim 12, an air temperature sensor for measuring air temperature) comprising

a heater and a temperature sensing element as defined in the respective claim, each element arranged and functioning as recited in the claim, wherein the temperature sensing element is mounted in a location such that:

with regard to Claim 8: as the airflow across the temperature sensing element decreases, the effect of the heater on the temperature measured by the temperature sensing element increases at a predetermined relationship; and

with regard to Claim 12: as airflow velocity in the branch passageway decreases, the heating of air in the branch passageway by the heater increases at a known relationship.

16. Claims 2-7, 9-11, 13 and 14 are allowable by virtue of their dependency upon the respective of claims 1, 8 and 12.

17. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art cited in the form PTO-892 and not mentioned above disclose related temperature measurement devices. The Severson Application publication is mentioned in the instant application's disclosure.

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19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stanley J. Pruchnic, Jr., whose telephone number is **(571) 272-2248**. The examiner can normally be reached on weekdays (Monday through Friday), the best hours being from 8:30 AM to 4:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez (Art Unit 2859) can be reached at **(571) 272-2245**. The Central FAX Number for all official communications, as of July 15, 2005, is **571-273-8300**.

Any inquiry of a general nature or relating to the status of this application or proceeding may be directed to the official USPTO website at www.uspto.gov or you may call the **USPTO Call Center** at **800-786-9199** or 703-308-4357. The Technology Center 2800 Customer Service FAX phone number is (703) 872-9317.

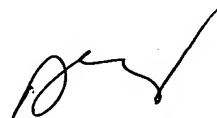
The cited U.S. patents and patent application publications are available for download via the Office's PAIR. As an alternate source, all U.S. patents and patent application publications are available on the USPTO web site, from the Office of Public Records and from commercial sources.

Private PAIR provides external customers Internet-based access to patent application status and history information as well as the ability to view the scanned images of each customer's own application file folder(s).

For inquiries relating to Patent e-business products and service applications, you may call the **Patent Electronic Business Center (EBC)** at **703-305-3028** or toll free at **866-217-9197** between the hours of **6 a.m. and midnight Monday through Friday EST**, or by e-mail at: ebc@uspto.gov. Additional information is available on the Patent EBC Web site at: <http://www.uspto.gov/ebc/index.html>.

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Stanley J. Pruchnic, Jr.
7/27/05



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